



UNITED STATES DEPARTMENT OF COMMERCE  
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/037,674	03/09/98	MIZUHARA	H 2933SE-11-CI

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EXAMINER

NADAV, O

ART UNIT

PAPER NUMBER

2811

DATE MAILED:

09/27/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.

09/037,674

Applicant(s)

Mizuhara et al.

Examiner

ORI NADAV

Group Art Unit

2811



☒ Responsive to communication(s) filed on Jul 11, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 16-33 is/are pending in the application.

Of the above, claim(s) 16-24 is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 25-33 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 17

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshimori et al. (5,468,684) or Leong (5,192,697).

Yoshimori et al. teach in figure 15 a semiconductor device comprising a semiconductor substrate 71, wirings 88 located on the substrate, and a passivation layer covering the surface of the substrate and the wirings, including a first insulating film 95 comprising SOG and containing impurities from the group consisting of argon, boron, nitrogen and phosphorus (column 16, line 15), and a second insulating film 77B (figure 4) comprising silicon oxide having a hygroscopicity lower than the first insulating film and being located on at least one of an upper side and a lower side of the first insulating film.

Leong teaches in figure 3 a semiconductor device comprising a semiconductor substrate 10, wirings 20 located on the substrate, and a passivation layer covering the surface of the substrate and the wirings, including a first insulating film 24 comprising SOG and containing impurities from the group consisting of argon, boron, nitrogen and

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phosphorus (column 4, lines 9-10), and a second insulating film 22 comprising silicon oxide having a hygroscopicity lower than the first insulating film and being located on at least one of an upper side and a lower side of the first insulating film.

Although Yoshimori et al. and Leong do not explicitly state that layers 95 and 24, respectively, are passivation layers, layers 95 and 24 meet the functional limitations of the claim since they protect the wirings. Therefore, the claimed invention is considered to be in at least obvious over Yoshimori et al. or Leong's device.

Regarding the processing limitations recited in claim 28 ("decomposing organic components by the selected impurity"), these would not carry patentable weight in this claim drawn to a structure, because distinct structure is not necessarily produced. In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985).

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 25-33 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Reference B is cited as being related to inorganic SOG passivation layer.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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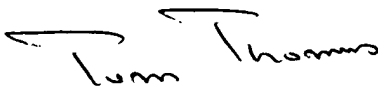
**Papers related to this application may be submitted to Technology center (TC) 2800 by facsimile transmission. Papers should be faxed to TC 2800 via the TC 2800 Fax center located in Crystal Plaza 4, room 4-C23. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Group 2811 Fax Center number is (703) 308-7722 and 308-7724. The Group 2811 Fax Center is to be used only for papers related to Group 2811 applications.**

Any inquiry concerning this communication or any earlier communication from the Examiner should be directed to *Examiner Nadav* whose telephone number is **(703) 308-8138**. The Examiner is in the Office generally between the hours of 7 AM to 3 PM (Eastern Standard Time) Monday through Friday.

Any inquiry of a general nature or relating to the status of this application should be directed to the **Technology Center Receptionists** whose telephone number is **308-0956**

Ori Nadav, Ph.D.

September 21, 2000

  
Tom Thomas  
Examiner  
September 21, 2000